

LEARN ONE THING  
EVERY DAY

AUGUST 2 1920

SERIAL NO. 208

ISO TOWNSHIP HIGH SCHOOL  
Cook County, Illinois

# THE MENTOR

## THE OHIO RIVER

By  
ALBERT BUSHNELL HART

DEPARTMENT OF  
HISTORY AND TRAVEL

VOLUME 8  
NUMBER 12

TWENTY CENTS A COPY

# The Smooth-Flowing Ohio

---

THE Ohio does not bustle and rush along over rocks and down many rapids, hurrying its boats up and down, after the manner of busy, anxious Northern rivers; neither does it go to sleep all along shore and allow the forest flotsam to clog up its channel, like the Southern streams. But none the less has it a character of its own, which makes its gentle impression day by day.

No river in the world has such a length of uniform smooth current. In and out it meanders for a thousand miles; it has time to loiter about the coal and iron mines of Pennsylvania; to ripple around the mountains of West Virginia; to make deep bends that it may take in the Southern rivers; then it curves up northward toward Cincinnati, as if to leave a broad land-sweep for the beautiful, blue-grass meadows of Kentucky; and, at North Bend, away it glides again on a long southwestern trip, down, down, along the southern borders of Indiana and Illinois, and, after making a last curve to receive the twin rivers—the Cumberland and the long, mountain-born Tennessee—it mixes its waters with the Mississippi, a thousand miles above the ocean.

From Pittsburgh to its mouth the Ohio receives into itself seventy-five tributaries, crosses seven states, and holds in its embrace one hundred islands. The verdure is vivid and luxuriant; the round tops of the swelling hills are like green velvet, so full and even is the foliage. The river constantly curves and bends, knotted like a tangled silver thread over the green country. Every turn shows a new view: now a vista of intervalle on the north; now a wooded gorge on the south; now a wall of hills in front; and now, as the stream doubles on its track, the same hills astern, with sloping valley-meadows separating their wooded sides.

WILLIAM CULLEN BRYANT.

---

## THE MENTOR ASSOCIATION

ESTABLISHED FOR THE DEVELOPMENT OF A POPULAR INTEREST IN  
ART, LITERATURE, MUSIC, SCIENCE, HISTORY, NATURE AND TRAVEL

THE MENTOR IS PUBLISHED TWICE A MONTH

BY THE MENTOR ASSOCIATION, INC., AT 114-116 EAST 16TH STREET, NEW YORK,  
N. Y. SUBSCRIPTION, FOUR DOLLARS A YEAR. FOREIGN POSTAGE 75 CENTS  
EXTRA. CANADIAN POSTAGE 50 CENTS EXTRA. SINGLE COPIES, TWENTY CENTS.  
PRESIDENT, W. D. MOFFAT; VICE-PRESIDENT, PAUL MATHEWSON; SECRETARY,  
G. W. SCHIECK; TREASURER, J. S. CAMPBELL; ASSISTANT TREASURER AND ASSIST-  
ANT SECRETARY, H. A. CROWE.

AUGUST 2, 1920

VOLUME 8

NUMBER 12

Entered as second-class matter, March 10, 1913, at the postoffice at New York, N. Y., under the act of March  
3, 1879. Copyright, 1920, by The Mentor Association, Inc.



OLD VIEW OF PITTSBURGH  
Showing the junction of the Allegheny and Monongahela Rivers—forming the Ohio

# THE OHIO RIVER

BY PROF. ALBERT BUSHNELL HART, *Harvard University*

## MENTOR GRAVURES

ROBERT CAVELIER DE LA SALLE · WASHINGTON RAISING FLAG, FORT DUQUESNE, 1758  
EARLY DAYS ON THE OHIO · ALLEGHENY AND MONONGAHELA RIVERS FORMING  
THE OHIO · COAL FLEETS ON THE OHIO · FALLS OF THE OHIO AT LOUISVILLE



HAT European first laid eyes upon the stream to which the French gave the lovely name of "*La Belle Rivière*"? What bark first carried curious white men down the current of the widening and ever enlarging stream? All we know with assurance is that it was sixty years after the French began to explore the St. Lawrence and the English had reached the headwaters of the James and the Potomac, before Europe was informed that beyond the Appalachian mountains a great river descended to the southwestward.

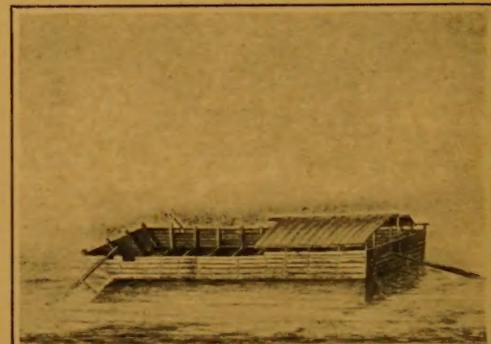
Not till 1670 did the French frontiersman, La Salle, force his way through the obstacles of the wilderness, till he embarked on what we now call the Allegheny River, which for many years was considered the true Ohio. The English Virginians, stirred up by "the Hon'ble Major General

# T H E O H I O R I V E R

Wood for the finding out the ebbing and flowing of the water on the other side of the mountains," a few months later reached "the great run emptying itself northerly into the great river," which without doubt was the New River, the most southeastern source of the Ohio. It was near a hundred years later before the two nations settled the question which of them was the rightful owner of the immense territory comprised in the basin of the majestic stream.

It was a century full of adventure and surprise. The French had the advantage of a water highway up the St. Lawrence and the Great Lakes, and, in course of time, learned that a carry of seven miles from Lake Erie would put them on Lake Chautauqua, one of the head-waters of the Allegheny. Shorter and easier crossings were found through the stream that still bears the name of French Creek, and other portages from the head-waters of streams flowing into Lake Erie across to the upper Muskingum, Hocking, Miami, and Wabash Rivers.

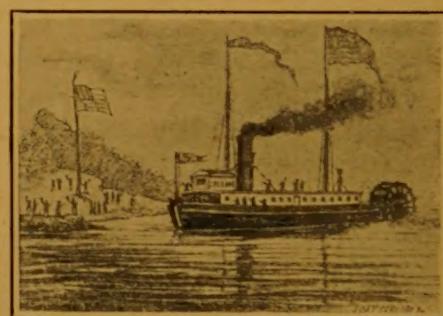
The upper waters of the Ohio became the theater of one of the most romantic episodes in the history of America, when, in 1753, the young Virginian, George Washington, was sent to the far-off French forts on the upper Allegheny to give warning that the English claimed the whole Ohio country. It was on a little tributary of the Monongahela that Washington and his little force were captured at Fort Necessity in 1754. It was almost within sight of Fort Duquesne, at the junction of the Allegheny and Monongahela, that, in 1755, Washington shared in the dangers but not the disgrace of the famous Braddock's Defeat. When, in 1758, the French were at last driven out of the Forks of the Ohio, and the little town huddled around the fort was named Pittsburgh for the great English statesman, William Pitt, the Ohio River, and all the immense area that it drained, was turned over to the British. Almost nothing was left to mark the eighty years of French dominion, except a few place names, such as Presque Isle on Lake Erie, Louisville on the Ohio, Vincennes on the Wabash, and St. Louis on the Mississippi. The new United States took



From an engraving made for the atlas of Victor Collot's "Voyage in Western America," published in Paris, 1826

FLAT BOTTOM RIVER BOAT

The sort used by pioneers on the Ohio and the Mississippi



FIRST BOAT BUILT ON THE WESTERN  
WATERS, 1811

The *New Orleans*, first steamboat to navigate the Ohio and Mississippi. She was built at Pittsburgh by Nicholas Roosevelt in 1811, and under his guidance reached New Orleans early in the following year. Fulton and Livingston were the proprietors of the craft, which was constructed and sent south as part of the plan by which the owners were seeking to obtain a monopoly of steam transportation in America

# T H E O H I O R I V E R

over the control of the river and its basin; and from that time to this the Ohio has been one of the arteries of the American Republic.

## *The River's Source*

What is the great stream? Where is its water-shed? The line drawn around the farthest head-waters of its remotest tributaries makes a figure like an eagle's wing. It touches the head-waters of the Savannah and Catawba, of the Roanoke, James and Shenandoah, of the Potomac, and Susquehanna. It sweeps within sight of Lake Erie and Lake Michigan. It encloses 214,000 square miles of territory. It pours more water into the Mississippi than the Missouri, and is of a hundred times more consequence as a commercial waterway. The thousand-mile sweep of the main stream is one of the longest stretches of navigable water in the world.

The main stream is the resultant of a thousand creeks and runs and branches and forks springing up in one of the most favored regions on earth.

For fertility and for the rainfall which insures fertility, for national routes of travel, for mineral wealth, for the sites of great cities and prosperous towns and rich farms, for the happiness and intelligence of its population, no part of the continent excels the historic and beautiful valley of the Ohio.

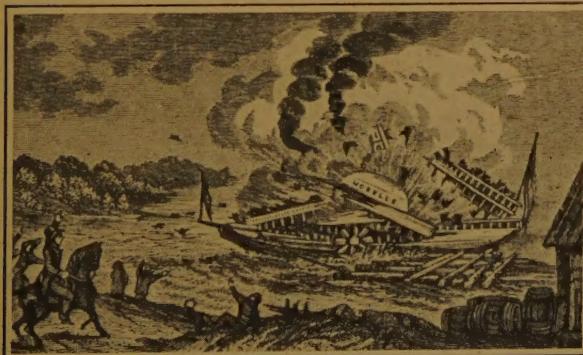
The mountains rise steeply from the eastern slope up to a water-shed ranging from 1,427 feet at Lake Chautauqua to 3,500 feet at Blowing Rock, near the source of the New River. At the other edge, the bowl dips to the level of the Mississippi, which is 270 feet at the mouth of the Ohio. In all that winding thousand miles there is but one fall of any consequence, that at Louisville, which is but 24 feet and easily run down stream by steamers.

The steep slopes of mountain and river country give a quick run-off in times of heavy rain or thaw; hence the Ohio is, more than most great rivers, subject to sudden rises, in some places as much as fifty feet above low water, with a consequent flooding of the beaches and the towns that have audaciously perched themselves thereon.



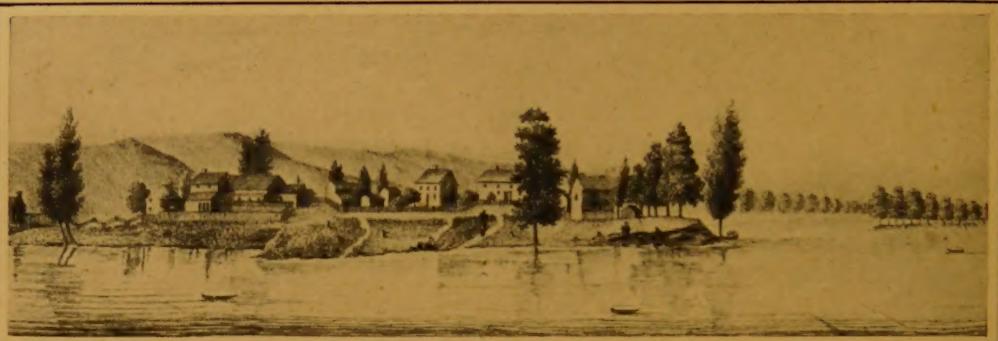
OHIO RIVER STEAMBOAT, *BELVIDERE*

A picture used for years in Europe to illustrate the flimsy and dangerous construction of many Western river boats. The *Belvidere* was built at the town of Portsmouth, Ohio, in 1825, escaped all dangers incident to her duties, and survived to the venerable age of six years before being worn out. The average life of an early Western steamboat was about three or four years



EXPLOSION OF OHIO STEAMBOAT, *MOSELLE* (1838)

By which nearly 200 emigrants lost their lives



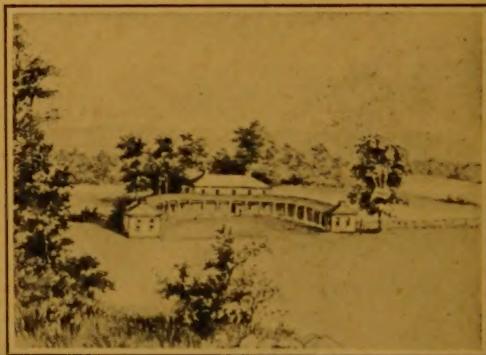
EARLY VIEW OF MARIETTA ON THE OHIO

From an engraving made about 1826. Marietta—founded in 1788—is the oldest town in the State of Ohio

### *Pioneer Days on the Ohio*

For a century the Ohio was the main artery of east and west travel in the Middle West. Many are the visitors that have recorded their impressions of the great stream. Breckenridge as a child floated down, and took part in the rough life of the boatmen on the way back. He saw, about 1790, "the encampment of General Wayne, at a place called Hobson's Choice," where now stands the Queen City, Cincinnati. He saw a buffalo hunt on the banks of the river. He fed upon flocks of turkeys, obligingly perched in sugar trees above the campfire. He marveled at gigantic sycamores, which have long since disappeared. He took part in a bear hunt in the middle of the river. He voyaged on the Ohio on stretches two hundred miles long without a cabin on the bank.

The upper Ohio was more quickly settled. In 1787 the famous Ohio Company of Associates, formed in New England, had the boldness to buy a million and a half acres of land along the Ohio, and to found the first permanent settlement on the north side of the Ohio. The Journal of Colonel John May of Boston tells of the hardships of the journey over the divide as his company scrambled "on the ridge-pole and, Noah-like, could look into the old world and new." Beyond he was on Ohio waters, and soon on the Monongahela River "sailed a boat for New Orleans." He found Pittsburgh "an irregular, poorly built place—the inhabitants, perhaps because they led too easy a life, inclined to be extravagant and lazy. They are subject, however, to frequent alarm from the savages of the wilderness." Thence he proceeded "by one lovely island after another, floating tranquilly, but majestically, at the rate of four and one-half miles



Redrawn from an old print for "The Ohio River," by Archer B. Hulbert,  
G. P. Putnam's Sons, publishers

### THE BLENNERHASSET PLANTATION

On an island in the Ohio, near Parkersburg, West Virginia; named for Harman Blennerhasset, famous in connection with Aaron Burr's conspiracy

# T H E O H I O R I V E R

an hour." And so he arrived to take part in the founding of a new New England in Marietta.

## Early Traffic on the River

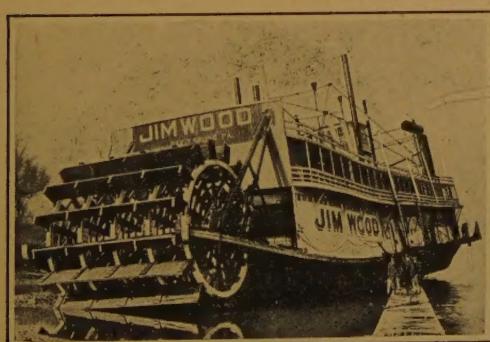
The advantage of the Ohio was that it was a fluid trail, the only practicable highway through a wilderness of forest and streams, and gravity was the automatic motor power. Hence the endless procession of keel-boats and flat-boats and Kentuck boats, and rafts of timber, year after year, till, in 1811, Nicholas Roosevelt, great-great uncle of another adopted son of the wilderness (Theodore Roosevelt), built the first western river steamboat, the *New Orleans*, and sent her triumphantly down the river. The steamboat revolutionized the Ohio trade because it could walk up hill, thus avoiding the back-breaking poling and tracking and rowing which made up-stream boating so difficult and so expensive.

The Ohio steamers vied with the Mississippi packets in their splendor and their reckless dangers. Dickens in his "American Notes," among other uncomfortable truths, set down his impressions of the steamboat *Messenger* on the Ohio River in 1842. These "native packets," he says, "have no mast, cordage, tackle, rigging, or other such boatlike gear; nor have they anything in their shape at all calculated to remind one of a boat's head, stern, sides, or keel. Except that they are in the water, and display a couple of paddle-boxes, they might be intended, for anything that appears to the contrary, to perform some unknown service, high and dry, upon a mountain-top. There is no visible deck even; nothing but a long, black, ugly roof, covered with burnt-out, feathery sparks; above which tower two iron chimneys, a hoarse escape-valve, and a glass steerage-house. Then, in order, as the eye descends towards the water, are the sides, and doors, and windows of the staterooms, jumbled as oddly together as though they formed a small street, built by the varying tastes of a dozen men; the whole is supported on beams and pillars resting on a dirty barge, but a few inches above the water's edge; and, in the narrow space between this upper structure and this barge's deck, are the furnace fires and machinery, open at the sides to every wind that blows, and every storm of rain it drives along its path."



From Church's "Ulysses S. Grant"

BIRTH COTTAGE OF GENERAL GRANT  
On the Ohio, at Point Pleasant, near Cincinnati. As it appeared before removal to Columbus in the 80's

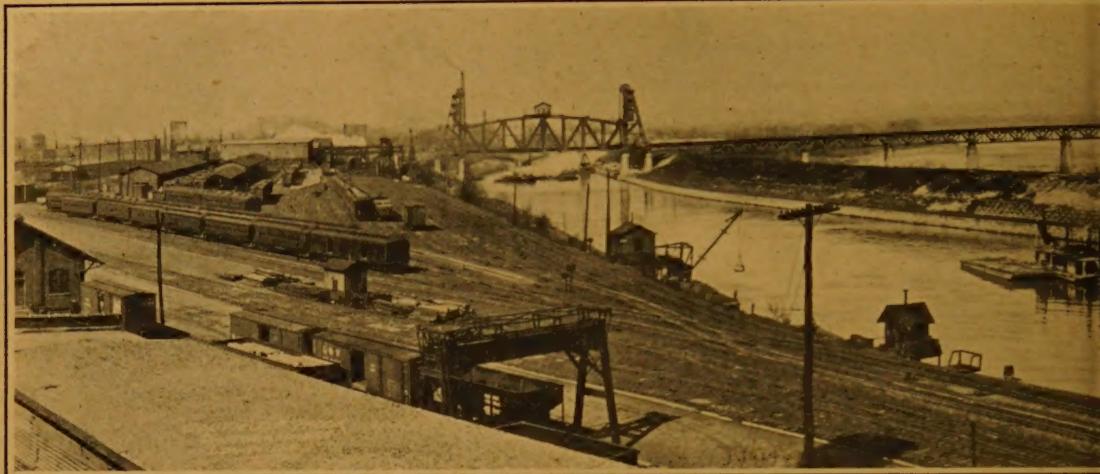


Copyright, Keystone View Co.

AN OLD-TIME RIVER STEAMER

Lifted by a flood and deposited over a levee, and now a total loss

# T H E   O H I O   R I V E R



THE OHIO RIVER

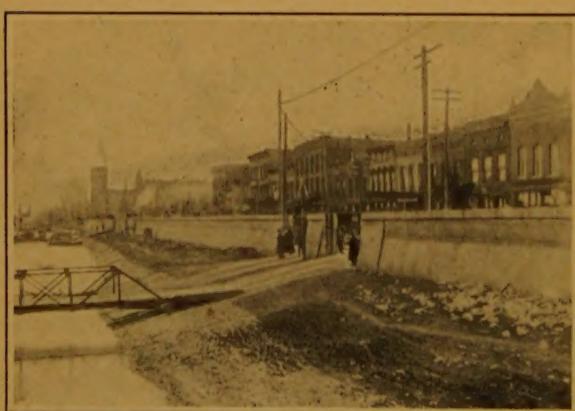
Showing the great steel bridge, and the United States Canal through which river craft make their way around the Falls

The river had its own horrors sufficiently set forth in a special Steam-boat Directory and Disasters on the Western Waters, published in 1856, such as the *Moselle*, which claimed to be "the swiftest steamboat in America," which had been known to run a hundred and ten miles down the stream in eight hours, and ended by exploding all four boilers at once with a fearful loss of life. The fatalities upon a river which in few places had a deep channel more than a quarter of a mile wide were amazing. When the *Lucy Walker* blew up near New Albany in 1844, though a Government snag boat was only two hundred yards distant, and there was only twelve feet of water, about fifty people were killed, and twenty injured. These accidents, mostly due to gross carelessness, either in the construction of the machinery, or in the management of the craft, were much reduced when

the United States Government, in 1838, instituted a system of steamboat inspection; but wreck or fire was the eventual fate of most of the river boats.

## *Decline of River Trade*

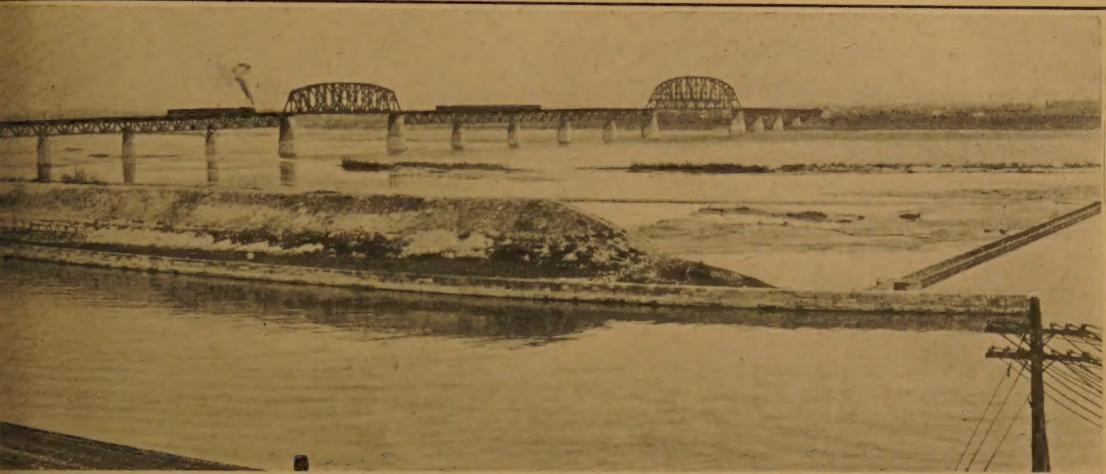
The Ohio River in its length, in the richness of the country which it traverses, and in its use for navigation, is much more important than the Rhine, yet is subject to such variation of depth as to impair its service, so that, a



AT CAIRO, ILLINOIS

Where the Ohio joins the Mississippi, a wall was erected as a protection to buildings on the river front after the great flood of 1913

# THE OHIO RIVER

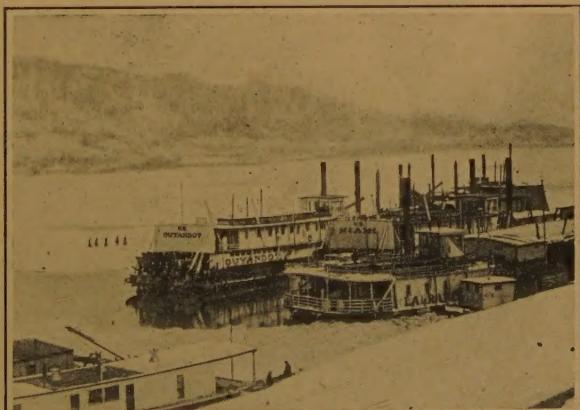


## EVILLE, KENTUCKY

La Salle, discoverer of the river, is believed to have descended the stream as far as the Falls, about the year 1670

few years ago, it had almost ceased to be a through highway. The timber on its upper waters was cut, and the immense rafts of saw-logs dwindled. Parallel railroads follow it on the south bank as far as Cincinnati, and the palatial steamers ceased to ply on the lower river. Its main use was for the coal-barges, gathered in rectangular islands, moved and steered by a dirty stern-wheel steamer in the middle. The barges drew very little water, and enormous quantities of coal thus could go down the Ohio and Mississippi.

There are numerous stretches of smooth water on the Ohio, and, for many years, there has been a plan for the construction of a channel by a series of locks. The Government of the United States has under way a system of locks and dams, fifty-three in number, which assure nine feet of water at all seasons. This is a great boon to the coal-carrying trade, but all the important towns have rail connections, and that has killed all long-distance passenger travel, and most of the local trade. On the Ohio, as on the Mississippi, no systematic freight business has been developed such as makes the Rhine and Danube so lively. Hence the levees in front of the city are almost deserted. This is the day of carload shipments on through bills of lading, from any place to any place, and the river



Copyright, Keystone View Co.

RIVER BOATS TIED UP BY ICE

# T H E O H I O R I V E R

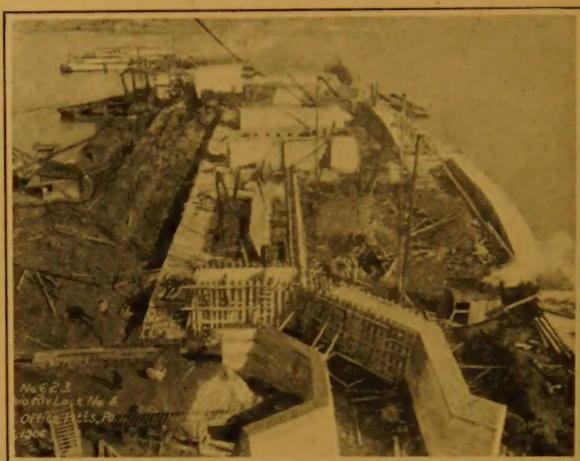
cannot compete. The Ohio has, however, a vast significance as one of the principal bonds of the Union. Its waters extend to western New York, and to Pennsylvania and West Virginia. That means that the greatest coal field and one of the greatest oil fields in the United States lie within that basin. Its waters are so near Lake Erie that it is an easy matter to carry the ore from the rich beds of Michigan and Minnesota through the Great Lakes and thence by rail to meet the smelting coal of the prolific industrial region of Pittsburgh.

The upper Ohio Valley is one of the busiest regions on earth— populous, rich, and progressive. From Pittsburgh to Cairo, the river runs through a region of furnaces, and foundries, and factories. At the same time the Ohio basin includes some of the best farming lands of America, supplying New York and Ohio wheat, Kentucky blue grass, and Illinois corn, and Indiana horses. The whole region is covered with a magnificent network of railways, including half a dozen of the East and West trunk lines.

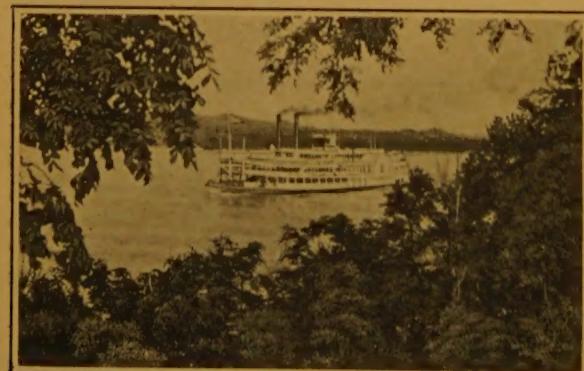
## *The Ohio Valley in History*

Besides the Colonial and pioneer history of the Ohio, it has played a great part in the affairs of the nation. Nine presidents came from the basin of the Ohio—Jackson, William H. Harrison, Polk, Lincoln, Grant, Andrew Johnson, Benjamin Harrison, McKinley, and Taft; while two others, Garfield and Hayes,

lived just over the northern edge of the basin. Alongside them should be noted six vice-presidents of the United States—Colfax, Fairbanks, Hendricks, Johnson, Breckinridge, and Marshall, besides such statesmen of national repute as John Hay, Hugh McCulloch, John G. Carlisle, Henry Clay, Salmon P. Chase, Thomas Corwin, Thomas Ewing, and John Sherman. The



CONSTRUCTION OF A LOCK AND DAM  
On the Ohio near Pittsburgh



A PLEASURE BOAT ON THE OHIO RIVER  
Near Cincinnati

# T H E   O H I O   R I V E R

Ohio Valley states taken together are the strongest section of the Union, the greatest wealth producers, and the most important element in politics.

It was the hap of the Ohio River not only to combine but to separate states and communities from 1787 to 1865. The low-water mark of the Ohio River on the north side was the dividing line between free and slave-holding territory every yard from the Pennsylvania boundary, just above East Liverpool, to the junction with the Mississippi. Many and thrilling were the incidents of the crossing of the river by the many routes of the "Underground Railroad." The fugitive slave from Kentucky or farther south, somehow, knew that if he could cross that stream, he would find on the other side friends, protectors, and a chain of abolition stations all the way to the Great Lakes, and to freedom.

Yet, when the great issue came, the battle-lines between North and South were for the most part drawn well south of the Ohio River. Kentucky never seceded, and the forces of the Confederacy, which in the first weeks of the war had a lodgment at Paducah on the lower river, and at points on the upper river were quickly pressed back. There was hard fighting to the end, on the southern tributaries of the Ohio; but, after the capture of Forts Henry and Donelson, covering the short line from the Tennessee to the Cumberland River, early in 1862, the Lower Ohio was within the Union lines; yet the great battles of Stone River and Perryville, of Chickamauga and Chattanooga and Nashville were all fought within the Ohio Basin.

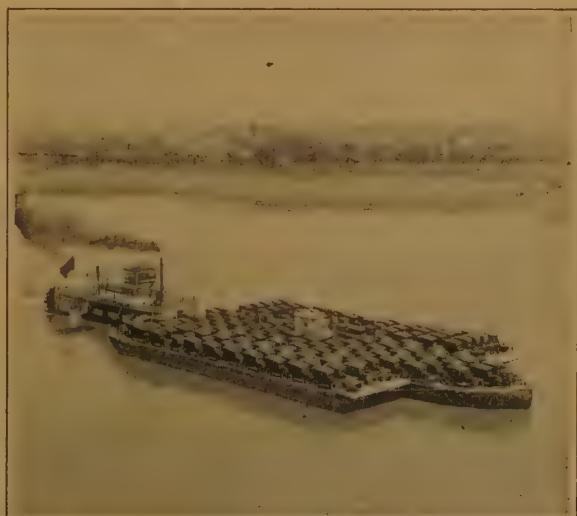
## *A Theater of War*

Indeed, the stretch north of the Ohio was in 1863 for a short time the theater of aggressive warfare. Morgan, the dashing Confederate cavalry commander, crossed the river at Brandenberg, Kentucky, and swung around back of Louisville and Cincinnati. With his 2,500 troopers, he swept like a meteor through the farms of Indiana and Ohio, replacing his horses from the country as he went along, and putting on the Governor of Ohio the



Copyright, Keystone View Co.

A HOUSEBOAT ON THE OHIO  
This well-equipped houseboat carried a honeymoon couple 8000 miles from a river port in Ohio to a town on the Amazon, in Brazil



AN OHIO RIVER BARGE  
Transporting a cargo of automobiles

---

# T H E   O H I O   R I V E R

---



VIEW OF CINCINNATI FROM THE OPPOSITE BANK OF THE RIVER

necessity of calling out the so-called "Squirrel Hunters," a wholly untrained militia. Morgan was headed and captured at last, but gave to the North reason for hard thinking as to what would have been the geographical result if his line of march, or rather of *rush*, could have been held by the Confederacy.

## *A Highway of Progress*

The Ohio is a splendid river, one of the world's notable water courses. It was the natural depression, and therefore the automatic highway from east to the virgin west. It was the line of distribution from the Atlantic States to the new communities beyond the mountains, which grew up to surpass their mother States. New York was the bridge between the sea and Lake Erie, but Pennsylvania and Virginia touched both tide water and the Ohio. The river became the channel not only for the movement of the emigrants, but for the distribution of social and political ideas.



A GREEN RETREAT  
On the banks of the Ohio

That is why some communities from the Eastern States were set up south of the river; why Abraham Lincoln, descendant of a Massachusetts family, and son of a Virginian, was born in Kentucky and lived in Illinois. New England, the Middle States, and the South came together on the Ohio, and learned to partake of the power and richness of the Ohio Valley.

---

# T H E   O H I O   R I V E R

---



THE LARGEST MOVABLE DAM IN THE WORLD

Fernbank Dam, constructed in recent years just below Cincinnati, is part of the system that is to give the Ohio River a nine-foot stage throughout the year



WHERE THE OHIO WINDS

Between the States of Ohio and Kentucky. Photograph taken from Eden Park, Cincinnati.  
The Ohio serves as boundary line between five states, Ohio, West Virginia, Kentucky, Indiana, and Illinois

---

## SUPPLEMENTARY READING

THE OHIO RIVER\* - By *Archer B. Hulbert*

ON THE STORIED OHIO

By *Reuben Gold Thwaites*

WATERWAYS OF WESTERN EXPANSION\*

By *Archer B. Hulbert*

ON THE OHIO

- - - By *Harry Bennett Abdy*

\*Out of print, but may be found in libraries.

\*\* Information concerning the above books may be had on application to the Editor of The Mentor.

# THE OPEN LETTER

William Cullen Bryant, the poet, writing over fifty years ago, pictures the Ohio as a gentle, tranquil stream, gliding through green hillsides and velvety meadows. True enough, in a general way, but the gentle Ohio has its unruly moods. The length of the river from Pittsburgh to Cairo is a little over 950 miles, and, at one time or another during its history, it has misbehaved at many points on that long journey. In justice to the Ohio it may be said that much of the blame for wilful encroachments on adjacent lands may be passed up to its tributaries, for these streams rise in mountainous regions, and are swollen by spring thaws. During the great flood of 1907 the discharge of the Ohio River was 439,000 cubic feet per second as against a normal low water discharge of 1,600 cubic feet. This surpasses the outflow of any other tributary of the Mississippi system.

★ ★ ★

In the dry season the Ohio is a very quiet affair—in fact, the channel can, at times, be forded above Cincinnati, and navigation is seriously impeded. It is a different affair, however, when the water-feeders of the river pour down winter tribute in a flow too great and too fast for the main waterway to dispose of it in normal fashion. The usual low-water periods are between July and December—the high-water time is usually in February. During floods, the overflow of the Ohio is rapid and overwhelming, sometimes covering thickly populated areas, with heavy loss of life and property. Houses and trees are swept away, and steamers are often grounded in grain fields a long distance from the river bed.

★ ★ ★

The high-water points at Cincinnati vary from 60 to 70 feet. The record stage for Pittsburgh—March 5, 1907—was 35½ feet, the danger line there being 22 feet. In January and March, 1913, when the water reached a height of 31 feet, about

700 acres of Pittsburgh land was submerged to a depth of 11 feet. At Wheeling, 90 miles below Pittsburgh, the water rose to 51 feet, and at Cincinnati, during that memorable and disastrous January, the high water mark was 62 feet—in March it went up as high as 68. The flood lasted for several days during March, and its effect on the Ohio valley was most disastrous. It caused the loss of 415 lives and 206 towns. Over 60,000 buildings were flooded, and 419 bridges were destroyed. More than \$180,000,000 in property was lost; in Cincinnati alone the loss was \$2,000,000, and 3,000 families were driven from their homes.

★ ★ ★

The disasters of 1913 instigated renewed investigations as to the protection of the Ohio Valley property from floods. Reservoirs, to hold the excess of water above the danger line, and reforestation are now to be employed, as levees are found to be insufficient protection. A most destructive feature of these winter floods is the ice. Running ice, and ice gorges incident to them, may occur in December or January. They are mortally dangerous to shipping when they break and give way. To meet this condition the Federal Government has built concrete ice piers at three points below Pittsburgh, including Gallipolis, Ohio. These piers rise about 36 feet above the water. In the vicinity of Cincinnati are timber ice piers. Boats sheltered behind these piers withstand the "breakup" and "runout" of the ice.

★ ★ ★

By Act of Congress in 1910 a project was adopted for the canalization of the entire Ohio River, with a view to obtaining a navigable channel of a minimum depth of nine feet. The project includes the construction of more than fifty locks and movable dams, at a total cost of about \$75,000,000. A number of these improvements have already been completed.

*W.D. Moffat*  
EDITOR



**T**HOUGH Robert, Sieur de la Salle, a native of Rouen, France, came to Canada rather as a missionary than as an explorer, he had not been long in the new land when Indian tales of a river highway in the South came to him, and he determined to go find it. His ambition, like that of other adventurous young men of his day in Canada,

was stimulated by the possibilities of discovering a route to the Orient, and he hoped the river the Iroquois called the "*Oliginy-sipu*" (Beautiful River) might lead to the Gulf of California. If that were the case, La Salle believed he would have no difficulty in discovering a way to reach China. According to the reports of the Indians, the great westward flowing river was distant from Montreal eight months' journey.

The Governor of New France, Courcelles, gave his official sanction to La Salle's enterprise, but he had no funds at his disposal to finance the expedition. La Salle therefore sold his grant of land on the banks of the St. Lawrence, beside the rapids afterwards called "La Chine," purchased four canoes and hired a crew of fourteen men. When he set out in the summer of 1689 (he was then twenty-six years old), he was accompanied by another group composed of Jesuit missionaries and their assistants. The flotilla of seven canoes, manned by twenty-four men, passed up the St. Lawrence and crossed Lake Ontario. On the far shore of the lake the company divided. It is believed that La Salle and his companions headed their canoes southeast from Lake Erie. But the remainder of the journey is a lost chapter in history. La Salle's records of the months spent in the wilderness have never been found and we have only the unadorned statement that he reached a branch of the Ohio and followed the main river as far down as the falls (Louisville).

Depleted in moral and physical resistance by the hardships that they had endured, every man in the party deserted La Salle while he was still engaged in exploring the Ohio River—the *Oliginy-sipu* of the Red Men. The traitorous crew, we are told by Armand de Bourbon, author of a quaint document inscribed three centuries ago, "left La Salle all in one night and saved themselves, some in New Hol-

land and others in New England. He found himself alone at four hundred leagues (1,200 miles) from his home, where he failed not to return." Armand de Bourbon avowed that his knowledge of the circumstances was based on a series of conversations that he had been privileged to have with the explorer during one of his visits to France. It is presumed that La Salle spent a year or more on the Ohio collecting beaver skins, to defray the cost of his trip. Many years later, in a letter addressed to Frontenac, then Governor of New France, he named himself the discoverer of the Ohio. But the actual narrative will never be ours to read, unless some ancient chest shall one day give up its treasure.

The transcriptions of Armand de Bourbon, various original journals and letters of La Salle, and many other documents relating to the valiant chevalier were comprised in a priceless collection of material bearing on French rule in North America that was gathered together many years ago by a French official of high position. In 1873, the United States Congress voted a sum sufficient to purchase these historical records from the owner. La Salle's records and letters were published here through the efforts of Francis Parkman, the historian.

A map drawn three years after La Salle's journey into the Ohio wilderness bears the legend: "River Ohio, so-called by the Iroquois on account of its beauty, which Sieur de la Salle descended." Louis Joliet's first map also ascribes the discovery of the Ohio to his brother adventurer. There is no evidence that La Salle knew the Ohio was a tributary of the Mississippi, and even so late as 1682, after he had reached the mouth of the Mississippi, he gave it as his opinion that the Ohio emptied into a large river, named "Chucugoa," which flowed east of the Mississippi Valley.



**A**BOUT the time that La Salle returned from the basin of the Ohio to his home in the north, the Governor of Virginia outfitted a party whose purpose was to discover the Ohio, or, in the words of Thomas Batts, official recorder of the expedition, "for ye findeing out of the ebbing and flowing of ye water behinde the Mountains

in order to (further) the Discovery of the South Sea." Five horsemen set forward from "Apomatocks Town" on Friday, September 1, 1671. Later they were joined by a group of Indians. Sixteen days after leaving their home settlement the party "had a sight of a curious river like the Thames against Chelcey (Chelsea), but had a fall yt made a great noise." These were the falls of the Great Kanawha, an affluent of the Ohio, 450 miles in length. Batts and his co-explorers, fired guns and branded trees, one for Charles II of England, and one each for the Governor of Virginia, for Major General Wood, for themselves, and for the Apomatock Indian, Perecute, "who said he would be an Englishman." By October first, the company was safely back in Fort Henry, Virginia, where they were acclaimed as discoverers of the important stream known to us as one of the headwaters of the Ohio. The falls of the Great Kanawha are about one hundred miles from the river mouth, and the mouth is three hundred miles below Pittsburgh.

The first specific record of a tour on the Ohio was written by George Washington. As an influential and public-spirited Virginian, he took great interest in locating the land on the Ohio that had been granted by the colony to officers and soldiers serving in the War against the French and Indians. In October, 1770, he and his party embarked at Pittsburgh in a large canoe and started down the river. Washington was chiefly concerned in acquainting himself with the character of the farmlands it was proposed to colonize, but there was room in his journal for comments on the scenery, on the "remarkably crooked" bed of the stream, and on the fact that below the mouth of the Great Kanawha hunters found thousands and tens of thousands of buffalo. Washington returned to his home at Mount Vernon, well pleased with the fertility of the lands adjoining the Ohio.

"A Journal of a Tour in Unsettled Parts of North America in 1796 and 1797" was issued by Francis Baily, President of the Royal Astronomical Society of England. Cincinnati then "contained about 300 or 400 houses, mostly frame-built." Louisville had half as many houses as the Ohio metropolis, and was protected by Fort Steuben. Monsieur Baily thought the site of Louisville "awfully grand" and described with enthusiasm the "immense cataract of water, formed by the Ohio hurrying itself with the greatest rapidity over a ledge of limestone rocks, which ex-

tend from one side of the river to the other."

An Englishman, Thomas Ashe, who wrote of his travels in America, "performed in 1806 for the purpose of exploring the rivers Alleghany, Monongahela, Ohio and Mississippi," declared the Ohio to be "beyond competition, the most beautiful river in the universe, whether it be considered for its meandering course through an immense region of forests; for its elegant banks; or for those many other advantages which truly entitle it to the name originally given it by the French, *La Belle Riviere.*"

Michaux, son of the renowned French botanist, came to America a little while before the visit of Thomas Ashe. He, too, found the Ohio "an immense and magnificent river." Wheeling, which had then been in existence a little more than a decade, consisted of seventy houses. The inhabitants of Marietta drew praise from Michaux for their enterprise in having built in their own shipyards a vessel to carry the produce of the country to Jamaica.

The mother of Anthony Trollope, following a tour in America in 1827, wrote a book that made a great stir under the title, "Domestic Manners of the Americans." Mrs. Trollope's chapters describing her boat journey from New Orleans to Cincinnati contain remarks caustic and denunciatory, but for the Ohio she has naught but pleasant phrases. "I imagine," says the author, "that this river presents almost every variety of river scenery; sometimes its clear, wave waters a meadow of level turf; sometimes it is bounded by perpendicular rocks; pretty dwellings are seen alternately with wild intervals of forest.... So powerful was the effect of this sweet scenery that we ceased to grumble at our dinners and suppers; nay, we almost learnt to rival our neighbors at table their voracious rapidity of swallowing, so eager were we to place ourselves again on the guard, lest we might lose sight of the beauty that was passing away from us."

Mrs. Trollope's widely-read book undoubtedly influenced Charles Dickens' opinion of people and places, before he crossed the ocean to discover America in 1842. He traveled from "Pittsburgh to St. Louis by Ohio and Mississippi River steamboats, and found the Ohio, a fine broad river always." He liked Cincinnati, and described Louisville as "regular and cheerful." But Ohio River boats and their passengers he characterized with scornful pen.



**B**EFORE the advent of explorers and surveyors on the Ohio, the most familiar craft to be seen speeding over the waters were the canoes of the Indians. Historians have named this "the Canoe Age," and this epoch of Ohio River history lasted from the time the savages first occupied the Valley until 1783. At the close of the

Revolution, emigrants invaded the Valley in such numbers that the keelboat and flatboat were devised to transport freight. Of these, we are told, "there were as many styles and designs as human ingenuity and human exigency could call forth. The average keelboat was some fifty feet in length by ten or twelve feet in width; the body of the boat was boarded over and would hold several wagon loads of freight. At the sides of the boat were 'running-boards' along which the crew walked while propelling it; placing their 'setting-poles' at the bottom of the stream or on a projecting log or rock, the men walked down the running-boards, the poles braced against their shoulders. Thus the keel-boat was the first craft after the canoe that was made to ascend rapid streams; anything from a raft to a houseboat would float down, but not one craft in a thousand that went down the Ohio ever came back again."

The most useful craft employed by the pioneer was the flatboat, a kind of barge, also called a "broadhorn." Some broadhorns were no better than crude rafts with hastily constructed huts for shelter; others had well-built cabins on the deck, and sheds for livestock. The raft and the barge in a few years' time "brought a whole nation into the wilderness." Often pioneer craft was lured to the shore by treacherous savages, who employed white captives as decoys. Many were the unequal battles that raged on the banks of the bloody Ohio. Dr. Saugrain, one of the earliest European travelers on the river, wrote in 1788 of a boat with "14 rowers and 8 or 9 passengers" that came down from Post Vincennes. One hundred and fifty miles from the fort Indians attacked the emigrants and killed two men. "The route is not very safe," he sagely commented.

So perilous was the journey down the Ohio thirteen or fourteen decades ago, that most emigrants chose the "Wilderness Road" through the toilsome Cumberland Gap. But by the end of the eighteenth century the river carried the great majority of adventurers and home-makers. "The chief highway was the Ohio River," writes Theodore Roosevelt, in "The Winning of the West." "All kinds of craft were used, even bark canoes and pirogues or dugouts; but the keelboat, and especially the flat bottomed scow with

square ends, were the ordinary means of conveyance. Sometimes the emigrants built or bought their own boat, navigated it themselves, and sold it or broke it up on reaching their destination. At other times they merely hired a passage. A few of the more enterprising boat owners speedily introduced a regular emigrant service. . . . The trip from Pittsburgh to Louisville took a week or ten days; but in low water it might last a month."

Professor Archer Hulbert tells us that the first ocean-rigged vessel left an Ohio River port for the sea in 1800. Sailing from Marietta, the *St. Clair* carried flour and pork to Havana. So successful was the venture that the ship-building business boomed for a time, but so many accidents were caused by the rough waters and floods of the Ohio that the industry eventually declined. A new interest arose, however, to hold the attention of empire-makers in the Ohio Basin. A 300-ton steamer propelled by one of Robert Fulton's recently invented engines left Pittsburgh for the down-river trip in the spring of 1811. Great was the astonishment of the countryside as the *New Orleans* made its way, "without the appearance of sail, oar, pole, or any manual labor about her, . . . propelled by power undiscoverable." It is recorded that "some claimed it was an attempt to chain nature's force and would end in disaster to crew and owners, a mere invention of the devil's." A Kentucky pioneer wrote: "All the family ran to the bank. We saw something, I knew not what, but supposed it was a saw mill from the working of the lever beam, making its slow but solemn progress with the current. We were shortly afterwards informed that it was a steamboat." It was five years later that a steamer first ascended the Ohio's difficult currents.

It was then rashly predicted that the voyage from New Orleans to Louisville would eventually be made in less than a fortnight. The trip now consumes about four days! Twenty years before the Civil War and the advent of the railroad, scores of luxuriously-fitted steamboats plied the Ohio, between Pittsburgh and New Orleans, carrying the produce of the prosperous valley and many passengers, including merchants and rich planters and their families, who looked upon the trip as an *expedition de luxe*.



**F**ROM whatever standpoint one views the Ohio River," declares a chronicler of the portentous stream, "it has a most interesting history; but of them all none is more attractive or important than that from which it appears as a strategic avenue of national expansion. 'Westward the course of empire takes its way'; this definition of the Ohio River very nearly meets the case. It was a course of empire; the Great Lakes did not become an emigration route until the steamboat had established its reputation in the third decade of the nineteenth century. By that time the entire eastern half of the Mississippi Basin had received a great bulk of its population, and the occupation of its western half was merely a matter of time. From the eastern seaboard there were many river routes into the interior; the St. John, Penobscot, Connecticut, Hudson, Delaware, Potomac, and James were avenues of approach for the race that fell heir to this continent. But once across the Appalachian range there was but one river, and on the Ohio and its tributaries that race spread its marvelous conquest. The occupation of the Ohio Basin was of strategic importance because, of necessity, the occupation of the remainder of the continent must follow. The vital question was not whether the Rocky Mountains could be crossed and the Pacific Coast secured, but, rather, could the Appalachian Mountains be crossed and the eastern half of the Mississippi Basin be occupied. The Ohio River was one strategic course of empire to the heart of the continent, and there is no phase of its history that is not of imperishable significance. . . . Few streams ever played so vital a part in the development of the United States. Providence meant this should be so. With a lavish hand these waters were thrown where they would count magnificently toward the building of a new republic. Three important conditions were answered: first, a generous quantity of water falls every year within the two hundred thousand square miles drained by the Ohio River and its tributaries; second, a liberal proportion of the water that falls flows away; third, the water passing from this area flows in the right direction—westward."

Said Edward Everett in 1835, "The destinies of the country run east and west. Intercourse between the mighty interior west and the seacoast is the great principle of our commercial prosperity and political strength."

In the early years of the nation's history the restless stream of the "River of Many

"Whitecaps" carried the canoes and barges of eager traders and colonists. Dozens of flatboats passed down the river, where on the banks courageous little settlements were coming to life. Population increased by leaps and bounds. The population of Indiana advanced 500 per cent. in ten years—between 1810 and 1820, establishing a record rarely equalled in the "boom" times and "rushes" of after years in states farther west.

Most of the early settlers lived away from the districts that immediately abutted the river. From the epoch when Indians were the sole inhabitants of the Valley, the shores of the Ohio's affluents were counted best for agricultural purposes. On the borders of the main stream busy ports came into being, and towns that were founded on manufacturing industries. "The most spectacular changes that came with the dawning of the Steamboat Age," says the author of "*The Ohio River*," "was the swift advance of certain of these entrepôts in point of population—the crowning of the valley with three imperial cities and the commercial awakening upon and under the earth. . . . Between the cities, towns and villages sprang up in the Steamboat Age, to live and thrive until the steamboat reached and passed the crest of its popularity."

The Ohio River is remarkable for the tremendous human interest that attaches to its history. No river of its size in America gave a livelihood to more people in a century's time; many that approximate or equal the Ohio in historic importance bear no comparison with it on the score of the personal element. . . . After the explorers of the Ohio came that swarthy army of borderers who wrestled with the Indian for mastery. When the fighting was done came the rush of the pioneer hosts—Dutch, Irish, Scotch and Quaker, pious, long-legged Yankee, roistering, chivalrous Virginian, rich man, poor man, beggar man and thief. This era calls vainly for an historian to chronicle its real story—the passionate lust of an unbridled multitude leaping into a wilderness. On this count no American river ever can approach the Ohio; on no other river in the world has such a remarkable social movement ever spent its force."

COAL FLEETS ON THE OHIO RIVER



**I**T was no less an authority than the late Andrew Carnegie who predicted that the valley of the Ohio River would some day become "the workshop of the world." The Ohio River system comprises streams that have a combined length of 4,500 miles and drain half a dozen of the largest states of the Union: Pennsylvania, West

Virginia, Ohio, Indiana, Kentucky and Illinois. The population of these states equals a fourth of the entire population of the country. Moreover, a great part of the nation's coal, iron, and natural gas have their sources in the Ohio Valley where, as a writer declares, "the commerce and industry of the United States have their highest exemplification."

The improvement of the Ohio River has contributed to a great extent within recent years to the advancement of great enterprises and the prosperity of the Valley's inhabitants. A century ago, we are reminded, "Pittsburgh was a collection of huts, far out on the confines of civilization." Today the "Monongahela Country" is said to produce "more freight than any similar extent of territory in the world. Millions of tons of coke, billions of feet of timber, thousands of cars of fruit and produce, hundreds of thousands of tanned hides, millions of pounds of copper and wire, and almost unbelievable quantities of steel, pig iron, glass, cork, and electrical apparatus are turned out of plants on the banks of the Upper Ohio. Well may one in wonder and awe, pause before the marvelous record of this out-growth of the score of cabins Washington counted in 1770."

Statisticians tell us that Pittsburgh has a coal output in neighboring mines equal to that of all France, and an iron and steel production greater than that of Great Britain. Sailing down stream from Pittsburgh, "we find the valley lined with little Pittsburghs, all growing and thriving and

emulating that great city. We have East Liverpool, one of the greatest pottery centers of the United States. We have Steubenville, with huge mills and manufactorys. . . . We have Wheeling, the metropolis of West Virginia, with vast iron and steel plants, with extensive potteries, big glass-houses and a large number of manufacturing plants of various kinds. Below Wheeling, we find Sisterville, New Martinsville, beautiful Marietta, Parkersburg and Huntington. We have Cincinnati, with industries and interests as large and diversified as any city of similar size in the country. We have Portsmouth, Evansville, Louisville, Paducah, and many other cities which are forging ahead at a rapid rate, and finally Cairo, at the meeting of the great Ohio and the Father of Waters. These cities are located directly on the river from which the valley receives its name, but hundreds of others, on tributaries on the Ohio, will do their share toward making the Valley, in truth, 'the workshop of the world.'

It is estimated that the coal fields of the Ohio Basin will supply the country for centuries. It is fortunate for the country's prosperity, therefore, that this broad waterway is available for the movement of the product of the mines at low transportation rates. Of all the mighty rivers of the United States, none has played a more important part in the industrial progress of the country adjacent to it, and beyond. Of all the affluents of the Mississippi, it is the most important in point of commerce.



**I**N the late Reuben Gold Thwaites, many parts of the West had a devoted historian. He wrote of the exploits of George Rogers Clark and Daniel Boone, of the pathfinders, Lewis and Clark, and of the fathers of the Mississippi Valley. One of his most absorbing tales is that of a journey down the "storied Ohio" in a skiff, from Brownsville on the Monongahela, to the junction of the Ohio and the Mississippi, eleven hundred miles in all. He "wished to see with his own eyes what the borderers saw; in imagination, to redress the pioneer stage and repeople 'it.'" So he set out with three members of his family in the spring of 1894 and for six weeks glided down the historic stream. Vividly he recalls the richly varied panorama. "Savages of the mound-building age, rearing upon these banks curious earthworks for archaeologists of the twentieth century to puzzle over; Iroquois war parties; La Salle, prince of French explorers and fur-traders, standing (1669) at the Falls of the Ohio; French and English fur-traders, in bitter contention for the patronage of the red man; borderers of the rival nations, shedding each other's blood in protracted partisan wars; surveyors like Washington and Boone and the McAfees, clad in leather hunting-shirts and fringed leggings, mapping our future states; hardy frontiersmen, fighting, hunting, or farming, as occasion demanded; George Rogers Clark, descending the River with his handful of heroic Virginians to win for the United States (what was then called) the great Northwest; the Marietta pilgrims, beating Revolutionary swords into Ohio plowshares; and all that succeeding tide of immigrants from our own Atlantic Coast and every corner of Europe, pouring down the great valley to plant powerful commonwealths beyond the mountains."

The *Pilgrim* began its journey on the Monongahela, a dignified stream soiled by grimy manufacturing towns on its margins. Above and below Pittsburgh, "the ear is almost deafened with the whirr and roar and bang of milling industries." At Braddock, "it required a liberal exercise of the historical imagination to convert the noisy manufacturing town into the scene of 'Braddock's Defeat.'" Padding, rowing, sometimes sailing, the *Pilgrim*'s passengers negotiated the rapids on the Upper Ohio, passed scenes made memorable by the one-time presence there of Washington and General Wayne, bordered the odoriferous oil fields that cast an iridescent film on the river's surface. Below the boundary line between Penn-

sylvania on the east and Ohio and West Virginia on the west, rugged hills hem the river in. East Liverpool and Wellsville, Ohio, are remarked for their pottery and tile-making works, and other towns farther down for their steel and iron mills and clusters of shabby cabins.

At Steubenville, Ohio, "a broad-stoned wharf leads sharply up to the smart, well-built town." Dozens of house-boats add interest to the life of the river on the way to Wheeling and Moundsville, West Virginia, and there are other craft that bear merchant peddlers, blacksmiths, itinerant players and singers, traveling sawyers, furniture menders, photographers. For all of these, the river is the open road.

Wheeling, West Virginia, a city of some fifty thousand inhabitants, lies upon "gaunt, gully-washed hills." A number of bridges cross the river here. Oil derricks thrust upward from the hilly banks near Marietta, proud Marietta with its lineage of soldier colonists, those New England veterans of the Revolution whom Lafayette named, "the bravest of them all."

Blennerhasset Island recalls the tragic story of Harman Blennerhasset, the dupe of Aaron Burr in the conspiracy of 1805.

Gallipolis has a story "all its own." Point Pleasant has individual renown as the birthtown of General Ulysses Grant. Green palisades and sandy islands, long reaches of curving river, hillside vineyards, miles upon miles of thriving Ohio and Kentucky villages precede the approach to Cincinnati, one of the great cities of Ohio. The *Pilgrim* came at last to the rapids called the "Falls of the Ohio," beside whose swift waters George Rogers Clark and his companions founded the city of Louisville, Kentucky, in May, 1778. Touching now at Kentucky villages, now at contented little Indiana towns, the skiff's four passengers drifted past the mouth of the Wabash and the Tennessee, and viewed the ancient port of Paducah, Kentucky. Thus these wayfarers of a quarter-century ago floated from the mountains to the plains, from the source of the Ohio to the portal at Cairo, Illinois, through which the great waterway passes to meet the Mississippi.

# CHARLES DICKENS ON THE OHIO

IN 1842



E had for ourselves a tiny stateroom with two berths in it, opening out of the ladies' cabin. There was, undoubtedly, something satisfactory in this location, inasmuch as it was in the stern, and we had been a great many times very gravely recommended to keep as far aft as possible, "because the steamboats generally blew up forward." Nor was this an unnecessary caution, as the occurrence and circumstances of more than one such fatality sufficiently testified.

As the row of little chambers opened on a narrow gallery outside the vessel, where we could sit in peace and gaze upon the shifting prospect, we took possession of our new quarters with much pleasure.

The Ohio is a fine broad river always, but in some parts much wider than in others; and then there is usually a green island, covered with trees, dividing it into two streams. The banks are for the most part deep solitudes, overgrown with trees. For miles and miles these solitudes are unbroken by any sign of human life; nor is anything seen to move about them but the blue jay, whose color is so bright, and yet so delicate, that it looks like a flying flower.

The river has washed away its banks, and stately trees have fallen down into the stream. Some have just toppled over, and having earth yet about the roots, are bathing their green heads in the river, and putting forth new shoots and branches.

Through such a scene as this, the unwieldy steamer takes its hoarse, sullen way; venting, at every revolution of the paddles, a loud, high-pressure blast; enough, one would think, to waken up the host of Indians who lie buried in a green mound yonder. The very river steals out of its way to ripple near this mound, and there are few places where the Ohio sparkles more brightly.

# THE MENTOR

## The Mentor in Bound Form Complete to Date

At different times we have had the pleasure of sending many of our friends the first five volumes of The Mentor Library. We have now complete three more volumes, numbers 6, 7 and 8. As you know the practical value of this work, we believe that you will want the additional volumes to complete your set to date.

One of the interesting features of The Mentor Library is that, every year, a new volume is added, bound uniform with the preceding volumes. It is thus possible for every person that seeks the educational advantages of The Mentor to own, at a small cost and on easy terms, the copies in permanent form.

Numbers six, seven and eight are bound uniform with the preceding volumes, and contain 432 full page gravure plates, more than 1,400 other illustrations and 1,700 pages. The three volumes contain numbers 121 to 192 inclusive.

The volumes that make up The Mentor Library are so valuable that, after you have read them, you will want to pass them on to the coming generation. From year to year the volumes increase in number, and they will, in time, make one of the largest, most interesting, and valuable educational series that has ever been published. You need send no money with your order—just write your name and address on the coupon below, or a postal card, and mail today. The volumes are sent postpaid.

If you already have either volume six, seven or eight, simply cross out the volumes not wanted and change the months of payment. Return the coupon now.

---

THE MENTOR ASSOCIATION, 114-116 East 16th St., N. Y.

*Gentlemen:*—Please send volumes six, seven and eight of The Mentor Library all charges paid, and I will send you \$3.75 upon receipt of bill and \$3.00 per month for six months (\$21.75 in all.)

Name \_\_\_\_\_

Street \_\_\_\_\_

Town \_\_\_\_\_ State \_\_\_\_\_

We can also supply separate Volumes numbers six, seven and eight. The price is \$7.25 per volume—5% discount for cash—or \$3.00 per month.

THE MENTOR ASSOCIATION, 114-116 E. 16th St., New York City